

HIERARCHICAL DEPENDABILITY FOR OPEN DISTRIBUTED ENVIRONMENTS

ABSTRACT

Systems and methods that are operable in open distributed environments, such as ToL and other similar systems are described. One dependability system includes a hierarchical arrangement of two or more nodes each having a fault analyzer object programmed to respond to status information relating to an associated system of one or more objects based upon a respective set of policies designed to improve object availability. The dependability system may be implemented in a telephony system. The telephony system may include a packet switched network, a gatekeeper coupled to the packet switched network, and a server coupled to the packet switched network and configured to process telephone calls over the packet switched network. A dependability method that is implemented in a distributed packet switched network also is described. In accordance with this method, status information relating to one or more component objects of a node in a hierarchical arrangement of two or more nodes is received at a lower-level node. In response to the received status information a component object control instruction for controlling the operational state of one of the component objects is issued at the lower-level node based upon a respective set of policies designed to improve object availability. A status report is issued from the lower-level node to a higher-level node in the hierarchical arrangement of nodes.